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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WANG, JIN CHENG

ART UNIT PAPER NUMBER

2628

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/761,315

Applicant(s)

SHEASBY ET AL.

Examiner

Jin-Cheng Wang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6, 8-16, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6, 8-16 and 19-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's submission filed on 8/11/2006 has been entered. Claims 1, 7 and 17-18 have been canceled. Claims 2-3, 5, 8-9, 11, 13-16 have been amended. Claims 19-20 have been newly added. Claims 2-6, 8-16 and 19-20 are pending in the application.

Response to Arguments

Applicant's arguments filed August 11, 2006 have been fully considered but are moot in view of the new ground(s) of rejection of the base claim 13 based on Barton et al. U.S. Patent No. 6,956,590 (hereinafter Barton), in view of Hermanson U.S. Patent No. 6,954,219 (hereinafter Hermanson) and Sheasby et al. U.S. Patent No. 6,473,094 (hereinafter Sheasby) and Kasson U.S. Patent No. 5,473,740 (hereinafter Kasson).

Bartons, Sheasby and Hermanson are silent to the claim limitation "wherein a portion of said image that is adjacent to said anchor point remains substantially fixed". However, when moving the second anchor point,, a portion of the cropped image that is adjacent to the first anchor point remains substantially fixed. This is exactly taught in Kasson. Therefore, having the portion of the image remains substantially fixed is OLD and WELL KNOWN in the prior art. For example, Kasson discloses the claim limitation wherein a portion said image that is adjacent to an anchor point remains substantially fixed (See Kasson Figs. 1, 2, 3A, 3B). Kasson teaches the user moves a mouse to position a cursor on the original image and depresses the mouse pushbutton to designate an anchor point (x1, y1) of the initially desired rectangular cropped image. The mouse is then manually moved and the sequentially updated position of the cursor

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defines a second anchor point (x_2, y_2) diagonally opposite the first corner. Kasson teaches that the second anchor point (x_2, y_2) can be freely moved while the first anchor point (x_1, y_1) remains unchanged, and thereby the portion of the image adjacent to the first anchor point (x_1, y_1) remains substantially fixed.

Moreover, Kasson also discloses setting an anchor point (x_2, y_2) on an opposite side or corner of the rectangular bounding frame (See Figs. 3A and 3B).

Kasson also discloses hiding any portion of source image outside of said bounding frame (See Figs. 1 and 2).

Therefore, having the combined teaching of Kasson, Bartons, Sheasby and Hermanson, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to have used the two anchor points for selecting an image to be cropped and thereafter zooming from the cropped image selected by Kasson using the Bartons, Sheasby and Hermanson's method of zooming an image by dragging a corner point or the edge of the image as taught by Sheasby (Sheasby column 4).

Sheasby teaches a manipulation of comparison view using sizing tool and positioning tool wherein the comparison view is cropped both horizontally and vertically. **A mouse cursor is placed over an edge of comparison view and edge can then be dragged until comparison view is a desired size.** The edge can be dragged from any of the four sides of comparison view and from the corners by appropriate mouse clicks and manipulation. The sizing of comparison view can also be changed by scaling, rather than by cropping. The comparison view is moved or positioned within a viewer and comparison view is then dragged to a desired position. The position of the image or comparison source within comparison view can also be changed by

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scrolling the image within comparison view. Both sizing and positioning of comparison view can also be controlled from keyboard such as by modifying grid coordinates to specify the size and position of comparison view.

One of the ordinary skill in the art would have been motivated to have cropped an image using the pointing devices for selection of the diagonally opposite anchor points and dragging a corner of the cropped image to alter the cropped image (Kasson Fig. 6 and column 3-4).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2-6, 8-16 and 19-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

For example, the base claim 13 recites the claim limitation of “hiding any portion of said source image outside of said bounding frame.”

According to applicant's specification, specifically Page 8-9 and Fig. 8 of the specification, the portion of the source image outside of the bounding frame for the image 32b is

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NOT hidden. See Figs. 2 and 8 of applicant's specification. The portion of the source image 32a outside the bounding frame for the 32b is not hidden. It is shown to the viewer.

Thus, applicant's specification is not sufficient to establish the claim limitation of "hiding any portion of said source image outside of said bounding frame."

Therefore, the metes and bounds of the coverage of at least claim 13 cannot be ascertained.

To comply with the "written description" requirement of 35 U.S.C. 112, first paragraph, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the "written description" inquiry, whatever is now claimed. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). For purposes of written description, one shows "possession" by descriptive means such as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). Such descriptive means cannot be found in the disclosure for the inventions of the base claim 13.

The base claim 15 is subject to the same rationale of rejection set forth in the base claim 13.

The base claim 16 is subject to the same rationale of rejection set forth in the base claim 13.

. Claims 12-6, 14, and 19 depend upon the claim 13 and are rejected due to their dependency on the claim 13.

Claims 8-12, and 20 depend upon the claim 15 and are rejected due to their dependency on the claim 15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6, 8-16 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barton et al. U.S. Patent No. 6,956,590 (hereinafter Barton), in view of Hermanson U.S. Patent No. 6,954,219 (hereinafter Hermanson) and Sheasby et al. U.S. Patent No. 6,473,094 (hereinafter Sheasby) and Kasson U.S. Patent No. 5,473,740 (hereinafter Kasson).

Re Claims 13, 15 and 16:

Barton discloses a computer implemented method for performing a cross-to-fill operation on an image, comprising the steps of:

(a) defining said image by automatically or manually containing at least a portion of a source image within a bounding frame (e.g., Figs. 6-13; column 6, lines 1-58);

(b) entering an interactive crop-to-fill mode by positioning a pointing device at a corner or side of said bounding frame (e.g., Figs. 6-13; column 6, lines 1-58 and column 1, lines 20-35);

(c) Cropping said image by moving said pointing device, thereby creating a cropped image, said cropped image continuously filling said bounding frame and an aspect ratio thereof being maintained equal to an aspect ratio of the bounding frame as said image is being cropped, said image being thereby either zoomed in or zoomed out within said boundary frame simultaneously to said cropping (e e.g., Figs. 6-13; column 6, lines 1-58 and column 1, lines 20-35).

Barton discloses the new map corresponding to the geographic area of the selected subportion of the originally displayed map fills the area of the display screen when the user zooms in using a pointing device. Barton's computer platform supports smooth zooming in which the graphically displayed map slides in an apparently smooth, continuous motion under the control of the user and the map scale changes in a smooth continuous motion in which a transition view is shown on the display screen of the computing platform between the showing of the map views.

Although Barton does not explicitly teaches the claim limitation of "positioning a pointing device at a corner or side of the bounding frame".

However, Sheasby discloses the claim limitation of "positioning a pointing device at a corner or side of the bounding frame".

Sheasby teaches a manipulation of comparison view using sizing tool and positioning tool wherein the comparison view is cropped both horizontally and vertically. **A mouse cursor is placed over an edge of comparison view and edge can then be dragged until comparison view is a desired size.** The edge can be dragged from any of the four sides of comparison view and from the corners by appropriate mouse clicks and manipulation. The sizing of comparison

view can also be changed by scaling, rather than by cropping. The comparison view is moved or positioned within a viewer and comparison view is then dragged to a desired position. The position of the image or comparison source within comparison view can also be changed by scrolling the image within comparison view. Both sizing and positioning of comparison view can also be controlled from keyboard such as by modifying grid coordinates to specify the size and position of comparison view.

It would have been obvious to have incorporated Sheasby's user interface for positioning a pointing device at the corner or side of the bounding frame into Barton because Sheasby also discloses other claim limitations set forth in the base claim 13. For example, Sheasby discloses the comparison source captured to comparison buffer and displayed in comparison view is the alpha channel of a foreground image to be composited with the active project of a background image and capturing alpha channel allows the user to view the alpha channel while keying the background image. Moreover, Sheasby discloses onion-skinning editing function wherein the N frames can be displayed transparently in comparison viewer by suitably adjusting its properties one at a time such that the current active frame is also visible and can be edited as desired (See Sheasby column 5). Sheasby's alpha channel allows the background image to be obscured and thereby the rest of the image beyond the comparison view can be obscured because the comparison view is highlighted while the background image is obscured (Sheasby column 5).

Therefore, having the combined teaching of Sheasby and Barton, one of the ordinary skill in the art would have been motivated to have used a pointing device placed over an edge of comparison view and edge can then be dragged until comparison view is a desired size. Doing so allows the user to drag the comparison view to a desired size (Sheasby column 5).

Although Sheasby and Barton does not explicitly teach “an aspect ratio” within the claim limitation of “an aspect ratio thereof being maintained equal to an aspect ratio of the bounding frame as said image is being cropped, said image being thereby either zoomed in or zoomed out within said boundary frame simultaneously to said cropping,” Barton discloses in column 6 the smooth zooming and repeatedly altering the zoom level. Barton discloses that the user performs a zoom-in operation and then immediately performs another zoom-in operation, and then decides that the second zoom was too much and so he/she zooms out wherein only one re-draw of the screen occurs, rather than three because the user was able to get immediate feedback about the extent of the zoomed-in area. Therefore, Barton at least suggests the claim limitation of “an aspect ratio thereof being maintained equal to an aspect ratio of the bounding frame as said image is being cropped, said image being thereby either zoomed in or zoomed out within said boundary frame simultaneously to said cropping,” As to the aspect ratio, Barton discloses the new map is at a larger scale than the originally displayed map so that new map fills the same area on the display screen (column 1, lines 25-35). Barton’s Figs. 8-9 wherein the aspect ratio of the bounding frame 60 is maintained.

Hermanson explicitly discloses “an aspect ratio” (column 3, lines 55-65).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was made to have incorporated the maintaining the aspect ratio of Hermanson into Sheasby and Barton because Sheasby and Barton suggests the claim limitation of maintaining the aspect ratio while cropping (Bartons Figs. 8-9 and column 6). Moreover, Hermanson also discloses cropping an image in a continuous fashion (Hermanson column 3, lines 55-65 and

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column 6, lines 9-35). Dong so would have allowed the image to fill the display screen (Barton column 1, lines 25-35).

Bartons, Sheasby and Hermanson are silent to the claim limitation “wherein a portion of said image that is adjacent to said anchor point remains substantially fixed”. However, when moving the second anchor point,, a portion of the cropped image that is adjacent to the first anchor point remains substantially fixed. This is exactly taught in Kasson. Therefore, having the portion of the image remains substantially fixed is OLD and WELL KNOWN in the prior art. For example, Kasson discloses the claim limitation wherein a portion said image that is adjacent to an anchor point remains substantially fixed (See Kasson Figs. 1, 2, 3A, 3B). Kasson teaches the user moves a mouse to position a cursor on the original image and depresses the mouse pushbutton to designate an anchor point (x1, y1) of the initially desired rectangular cropped image. The mouse is then manually moved and the sequentially updated position of the cursor defines a second anchor point (x2, y2) diagonally opposite the first corner. Kasson teaches that the second anchor point (x2, y2) can be freely moved while the first anchor point (x1, y1) remains unchanged, and thereby the portion of the image adjacent to the first anchor point (x1, y1) remains substantially fixed.

Moreover, Kasson also discloses setting an anchor point (x2, y2) on an opposite side or corner of the rectangular bounding frame (See Figs. 3A and 3B).

Kasson also discloses hiding any portion of source image outside of said bounding frame (See Figs. 1 and 2).

Therefore, having the combined teaching of Kasson, Bartons, Sheasby and Hermanson, it would have been obvious to one of the ordinary skill in the art at the time the invention was

made to have used the two anchor points for selecting an image to be cropped and thereafter zooming from the cropped image selected by Kasson using the Bartons, Sheasby and Hermanson's method of zooming an image by dragging a corner point or the edge of the image as taught by Sheasby (Sheasby column 4).

Sheasby teaches a manipulation of comparison view using sizing tool and positioning tool wherein the comparison view is cropped both horizontally and vertically. **A mouse cursor is placed over an edge of comparison view and edge can then be dragged until comparison view is a desired size.** The edge can be dragged from any of the four sides of comparison view and from the corners by appropriate mouse clicks and manipulation. The sizing of comparison view can also be changed by scaling, rather than by cropping. The comparison view is moved or positioned within a viewer and comparison view is then dragged to a desired position. The position of the image or comparison source within comparison view can also be changed by scrolling the image within comparison view. Both sizing and positioning of comparison view can also be controlled from keyboard such as by modifying grid coordinates to specify the size and position of comparison view.

One of the ordinary skill in the art would have been motivated to have cropped an image using the pointing devices for selection of the diagonally opposite anchor points and dragging a corner of the cropped image to alter the cropped image (Kasson Fig. 6 and column 3-4).

Claim 2:

Sheasby further discloses the claim limitation of selection of a region defined by the boundary frame by a pointing device (Sheasby Figs. 10-12 and column 5).

Claim 3:

Sheasby further discloses the claim limitation of pressing a button on a computer mouse over a visual control associated with one of the selected regions and subsequently releasing the button (Sheasby Figs. 10-12 and column 5).

Claim 4:

Sheasby further discloses pressing a key on the keyboard and subsequently releasing it (Sheasby Figs. 10-12 and column 5).

Claim 5:

Sheasby further discloses the claim limitation of determining which corner of said source extent of said source image is being manipulated (Sheasby Figs. 10-12 and column 5); determining the current position of a pointing device in a coordinate system determined by the original location and size of said source extent prior to interaction (Sheasby Figs. 10-12 and column 5); updating the extent of said source extent and therefore the sub-region of said source image to be drawn within said containing region such that the corner of said source image is set to said current pointer position in said source image coordinate system (Sheasby Figs. 10-12 and column 5).

Claim 6:

Sheasby further discloses the claim limitation of aborting by teaching the “undo” function which is the same as the aborting function (Sheasby Figs. 10-12 and column 5) by pressing a key (Sheasby Figs. 10-12 and column 5).

Claims 8-12:

The claims 8-12 are subject to the same rationale of rejection set forth in the claims 2-6.

Claim 14:

Sheasby further discloses the pointing device being a mouse wherein said step of moving said pointing device is moving said mouse towards the center of the image to zoom in and away from the center to zoom out (Sheasby Figs. 10-12 and column 5).

Claims 19-20:

Barton further discloses aborting or canceling the zoom-in (column 6, lines 30-43).
Kasson discloses aborting the cropping by pressing a predetermined key (See Kasson Fig. 6 and column 3-4).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 2-6, 8-16 and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by
Herbert US Patent Application Publication 2004/0257380 (hereinafter Herbert).

Re Claims 13, 15 and 16:

Herbert teaches a computer implemented method for performing a crop-to-fill operation on an image (Paragraph 0048), comprising the steps of:

Defining said image by automatically or manually containing at least a portion of a source image (e.g., image 132) within a bounding frame (image 123), hiding any portion of said source image outside of said bounding frame (Paragraph 0049 and Figs. 4-7);

Entering an interactive crop-to-fill mode (Paragraph 0048) by positioning a pointing device at a corner or side of said bounding frame thereby setting an anchor point on an opposite side or corner of said bounding frame (Paragraph 0049-0050 and Figs. 4-7);

Cropping said image by moving said pointing device, thereby creating a cropped image, said cropped image filling said bounding frame and an aspect ratio thereof being maintained equal to an aspect ratio of the bounding frame as said image is being cropped (Paragraph 0053), said image being thereby either zoomed in or zoomed out within said bounding frame simultaneously to said cropping (Figs. 4-7 and Paragraph 0050), wherein a portion of said image that is adjacent to said anchor point remains substantially fixed (Paragraph 0049-0050 wherein the portion of the image does not change when selecting the image area for cropping, after selecting the image area, zooming is applied to the image area and the selected image area is either zoomed in or out).

Claim 2:

Herbert further discloses the claim limitation of selection of a region defined by the boundary frame by a pointing device (Paragraph 0049).

Claim 3:

Herbert further discloses the claim limitation of pressing a button on a computer mouse over a visual control associated with one of the selected regions and subsequently releasing the button (Paragraph 0049-0050).

Claim 4:

Herbert further discloses pressing a key on the keyboard and subsequently releasing it (Paragraph 0049).

Claim 5:

Herbert further discloses the claim limitation of determining which corner of said source extent of said source image is being manipulated (Paragraph 0057); determining the current position of a pointing device in a coordinate system determined by the original location and size of said source extent prior to interaction (Paragraph 0057); updating the extent of said source extent and therefore the sub-region of said source image to be drawn within said containing region such that the corner of said source image is set to said current pointer position in said source image coordinate system (Paragraph 0057-0058).

Claim 6:

Herbert further discloses the claim limitation of aborting by teaching the “undo” function which is the same as the aborting function by pressing a key (Paragraph 0055).

Claims 8-12:

The claims 8-12 are subject to the same rationale of rejection set forth in the claims 2-6.

Claim 14:

Herbert further discloses the pointing device being a mouse wherein said step of moving said pointing device is moving said mouse towards the center of the image to zoom in and away from the center to zoom out (Paragraph 0053-0059).

Claims 19-20:

Herbert further discloses aborting the cropping by pressing a predetermined key (Paragraph 0053-0055).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jcw



KEE M. TUNG
SUPERVISORY PATENT EXAMINER